

Claim Rejection – 35 U.S.C. § 102

The Examiner has rejected claims 1, 3-6, 9 and 11-14 under 35 U.S.C. § 102(b) as being anticipated by Tornqvist (U.S. Patent No. 5,133,036).

The Examiner particularly cites Figures 2 and 3 of the Tornqvist reference and states that Tornqvist teaches a first electrode structure 9, luminous multilayered thin film structure 10, 11, 12, second electrode structure 13, 14. Further, the Examiner states that Tornqvist teaches a transparent second electrode structure containing parallel electrode conductors.

In claim 1, Applicant recites an active-type electroluminescent display comprising, *inter alia*, connection conductors each for connecting a second electrode and a signal supply portion. Each of the connection conductors is recited as having a section between the second electrode and the signal supply portion and at least a part of the section is recited as being a multi-layer structure formed of a second electrode material and used for the second electrode and a conductive material used for thin film transistors.

To anticipate a claim, a prior art reference must teach every element of the claimed invention. MPEP § 2131. That is, a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.

Applicants respectfully submit that claim 1 is not anticipated because each and every element as set forth in claim 1 is not found, either expressly or inherently described, in the Tornqvist reference.

Turning now to the reference, Tornqvist discloses an electroluminescent thin-film structure in Figure 2 including, on a glass substrate 7, an ion-diffusion barrier layer 8, a molybdenum layer 9, luminescent multilayered thin film structure 10, 11, 12, ITO thin film layer 13, a chromium conductor 14', and a copper thin film layer 14 (column 2, line 28 to column 3, line 10). The multilayered thin film structure includes an  $\text{Al}_2\text{O}_3/\text{TiO}_2$  thin film layer 10,

ZnS:Mn thin film layer 11 and , an Al<sub>2</sub>O<sub>3</sub>/TiO<sub>2</sub> thin film layer 12 (column 2, lines 46-54). The molybdenum layer 9 serves as a first electrode and the TIO thin film layer and the copper thin film layer 14 serve as a second electrode (claim 1 of the reference).

Tornqvist does not disclose a signal supply portion. Further, Tornqvist fails to teach a connection conductor for connecting the second electrode and the signal supply portion.

Tornqvist is silent with regard to a thin film transistor for driving a light emission element. The multilayered structure 10, 11 and 12 is disposed between the first and second electrodes and functions as a *luminescent* layer (Figure 2, and column 2, lines 46-47). Tornqvist does not teach that at least a part of a section of the connection conductor is a multi-layer structure formed of materials used for the second electrode and the thin film transistors. Tornqvist's chromium conductor 14' is disposed only between the second electrodes 13 and 14, and is not taught as being used for connecting the second electrode and a signal supply portion.

As being apparent from the foregoing, Tornqvist does not disclose or teach each and every element as recited in claim 1. Therefore, claim 1 is not anticipated by Tornqvist. Accordingly, claims 3-6 depending from claim 9 is novel over Tornqvist.

In claim 9, Applicant recites an active-type electroluminescent display comprising connection conductors for connecting a second electrode and a signal supply portion. Each of the connection conductors is recited as having a section between the second electrode and the signal supply portion and at least a part of the section is recited as being formed of a conductive material used for thin film transistors.

As discussed above with regard to the rejection of claim 1, Tornqvist fails to teach a connection conductor for connecting a second electrode and a signal supply portion. Therefore, Tornqvist does not anticipate claim 9. Similarly, claims 11-14 depending from claim 9 are not anticipated by Tornqvist.

For at least the foregoing reasons, the anticipation rejection of claims 1, 3-6, 9, and 11-14 is improper. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the rejection of claims 1, 3-6, 9 and 11-14 under 35 U.S.C. § 102(b).

#### Claim Rejection – 35 U.S.C. § 103

The Examiner has rejected claims 2, 7-8, 10 and 15-16 under 35 U.S.C. § 103(a) as being unpatentable over Tornqvist in view of Ishiguro et al. (U.S. Patent No. 6,146,928).

The Examiner states that Tornqvist does not teach a type of thin film transistors containing a polycrystalline silicon layer, an external signal supply device connected to a light emission panel, and conducting materials of conductors in connection to a gate electrode, drain electrode, and source electrode. However, the Examiner alleges that Ishiguro remedies such deficiencies of Tornqvist.

Claim 2 is recited as being dependent upon claim 1. Therefore, claim 2 includes all the limitations as recited in claim 1 and further includes additional limitation with regard to the material for the connection conductors.

As recognized by the Examiner, Tornqvist does not disclose anything with regard to a thin film transistor. Tornqvist teaches only an electroluminescent panel portion.

Ishiguro discloses only a thin film transistor and does not disclose a light emission display comprising a light emission panel including light emission elements each having first and second electrodes and an emissive portion; and thin film transistors for driving the light emission elements, as recited in claim 1.

As discussed above with regard to the rejection of claim 1, the luminescent multilayered structure 10, 11, 12 is disposed between the first and second electrodes in a luminescent panel portion which exists independently of thin film transistors driving the panel portion. Therefore,

the multilayered structure cannot be replaced with the thin film transistors taught by Ishiguro. Further, although Ishiguro teaches connecting a liquid crystal panel 1006 and transistors using an electric power source 1010 in Figure 17, the electric power source 1010 is disclosed to supply electrical power to several circuits shown therein (column 9, lines 54-55). The electric power source 1010 is clearly distinguished from a signal supply portion as set forth in claim 1. Ishiguro does not teach anything with regard to a connection conductor as recited by Applicant. In this respect, Applicant respectfully submits that there is no suggestion or motivation to modify the reference teachings to make the claimed invention, in the reference themselves or in the knowledge generally available to one of ordinary skill in the art.

Even if Tornqvist's thin film matrix structure is modified to include a polycrystalline silicon layer as well as transistors and an external power source as proposed by the Examiner, the resultant would not arrive at Applicant's invention.

In light of the foregoing, Applicant respectfully submits that a *prima facie* obviousness does not exist with regard to claim 1, because the references do not teach or suggest all the limitations of the claimed invention; there is no suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference teachings; and there is no reasonable expectation of success in combining or modifying the teachings to make the claimed invention.

For at least the foregoing reasons, claim 1 is not rendered obvious by the references, individually or in combination thereof. Similarly, claim 9 is patentable over the references. Therefore, claims 2 and 7-8 depending from claim 1, and claims 10 and 15-16 depending from claim 9 are believed to be allowable. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the rejection of these claims under 35 U.S.C. § 103.